

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Amend the paragraph on page 15, lines 16-22, as follows:

Upon discovering the topology of the network (be it switched Ethernet network or, by analogy, the topology of the bridged Ethernet network, router-based scaled, switched Ethernet network or the like) and upon learning about the capacity of the network components the packet monitor can observe the network. For example, in a switched Ethernet network, the packet traffic monitor learns about the per-port ingress packet counters in the switches and it can poll such counters ~~order~~ to observe the number of broadcast packets.

Amend the paragraph on page 16, line 18-page 17, line 6, as follows:

As mentioned above, scaled networks can be constructed using routers to connect the VLANs or "subnets." As further mentioned, each subnet in the router-based scaled networks can be an isolated domain for packet propagation, where broadcast packets are directed by ~~swithees~~ switches only to the hosts within the same subnet. This limits the damage that can be done by a host that sends too many broadcast packets. This property of routers is often quoted as a reason for using routers instead of constructing a large subnet using only switches or bridges. However, it is not desirable to use routers in this way. One reason is that setting up router parameters and tables can be significantly burdensome to an administrator. And since a router needs to allow (or prevent) broadcast packets to reach all the hosts, it is likewise burdensome to have to worry about which subnet a given host is in. Accordingly, although the present invention can be implemented in a router-based network the present invention contemplates preferred solutions at the switch level (in shared data networks).

Amend the paragraph on page 17, line 18-page 18, line 4, as follows:

Once forwarding is disabled, the disablement and recovery time interval can be controlled. This measure is in many ways similar in character to the skepticism level and recovery time combination as described in U.S. Pat. No. 5,260,945, issued Nov. 9, 1993, by Thomas Lee Rodeheffer, titled "Intermittent Component Failure Manager and Method for Minimizing Disruption of Distributed Computer System," which is incorporated herein by reference (hereafter "Rodeheffer"). Although, unlike the present invention, Rodeheffer's approach is directed to failure management that responds to component or link failures or

intermittent failures, the basic idea of skepticism and recovery time control (as will be later described) is adopted by the present invention. Other measures are not precluded although this approach has been shown to produce good results.

Amend the paragraph on page 18, lines 5-20, as follows:

In general, a skeptic is used when a fault monitor, separate or integral to the skeptic, recognizes a "broken" component or connectivity (or link). Upon receiving a fault indication, the skeptic enters a wait state before it lets such component or connectivity to recover, i.e., rejoin the network and prompt reconfiguration of the network topology graph, after it starts working again. When a broken component (e.g., host) is detected, that component is taken out of operation for successively longer periods in a random exponential backoff before an attempt is made to use it once more. The monitor reduces the backoff exponent by one (or other value) if the component is put into service and does not fail again for the current backoff time. Conversely, the backoff time is increased if the component breaks again. Thus, often or intermittently broken components are "removed" from the network for progressively longer periods of time, and "repaired" components eventually "forget" their failed history. Namely, a broken component with a long history of failure will be allowed to recover after a progressively longer wait period and more ~~sever~~ severe penalty, as compared with the progressively decreasing wait period and penalty imposed on a broken component with a 'good' history. In one embodiment, the good history can be classified as skepticism level zero (0). Failure cycles in greater numbers increase the skepticism level accordingly. In other words, the skepticism level determines the recovery wait period.